

# I/M Design Decisions II

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I/M Summit Meeting

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# I/M Design Decisions II

## ■ Review:

- Vehicle Test Methods, Vehicle Model Years, Geographic Coverage

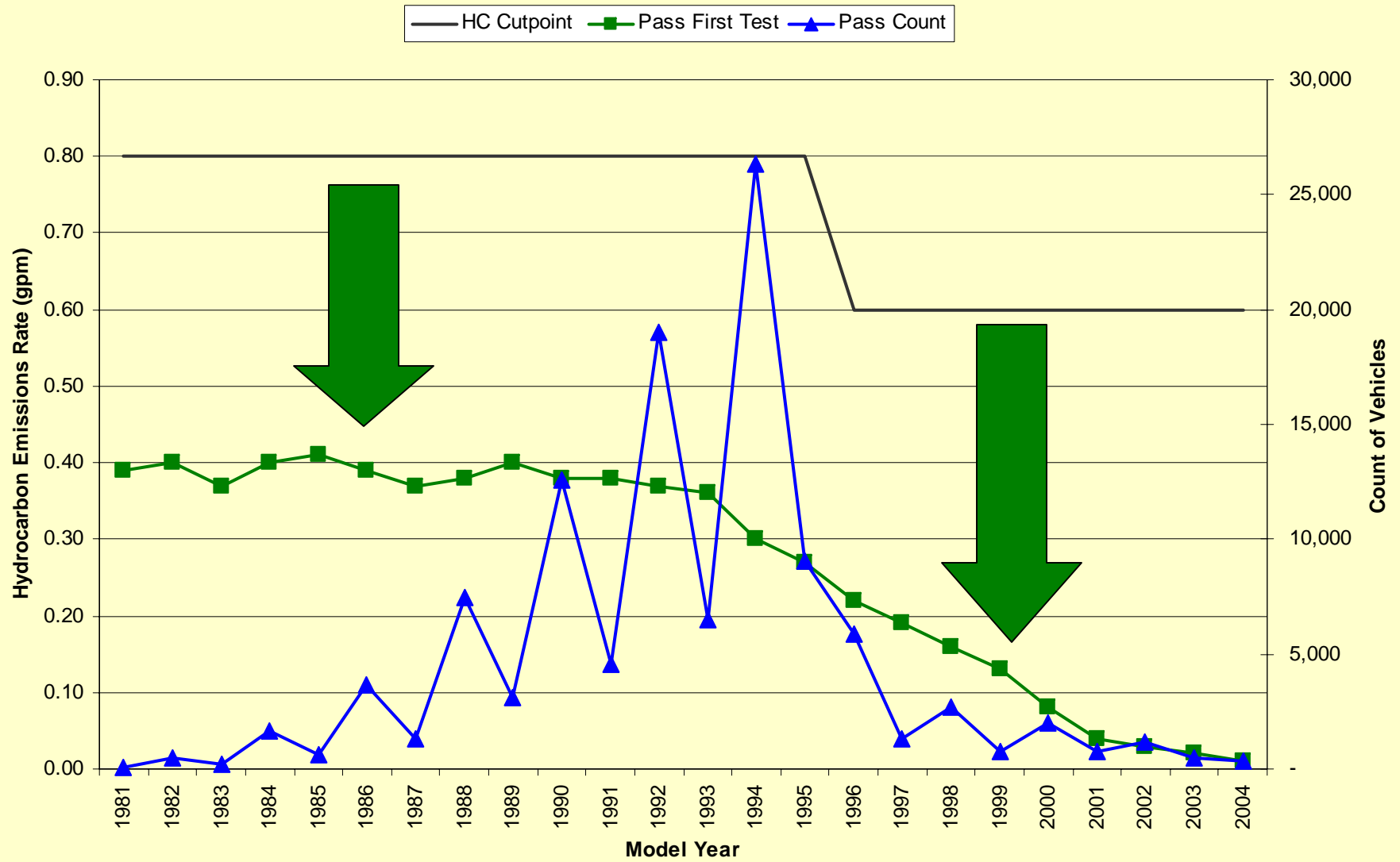
## ■ Continue:

- Test Network, Remote Sensing, Waiver Options, Vehicle Registration, Test Fees, Test Frequency, I/M Program Duration

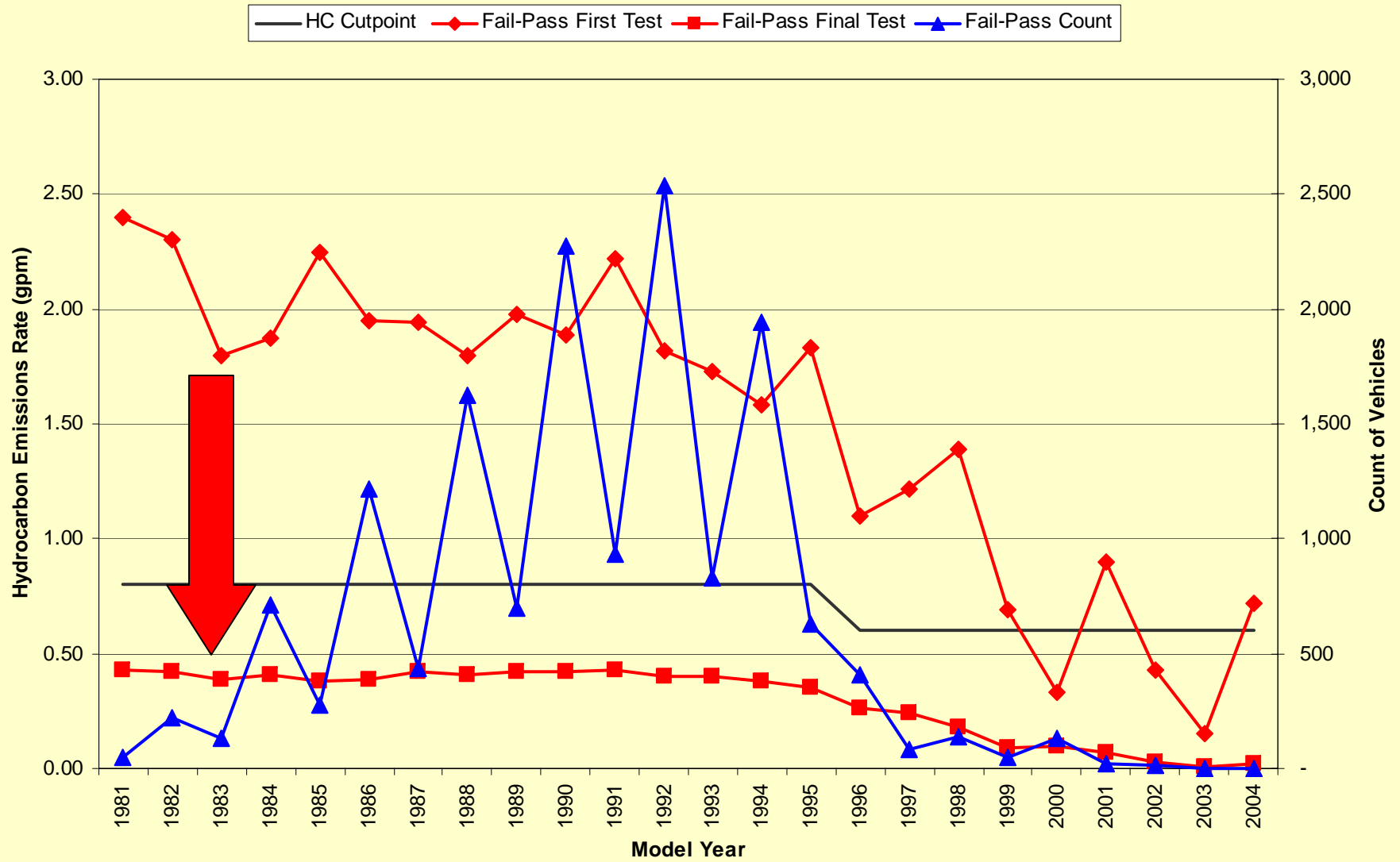
# Vehicle Test Methods

- On-Board Diagnostics II Test - Green
  - Remote OBD - Green
  - OBD Kiosk - Red
  - Don't exclude new technology - Green
  - OBD test for 1997+ Light Duty Diesels? - Vote
  - OBD fraud prevention? - Vote
- IM240, Gas Cap Tests - Need more info about air quality benefits, credit impacts

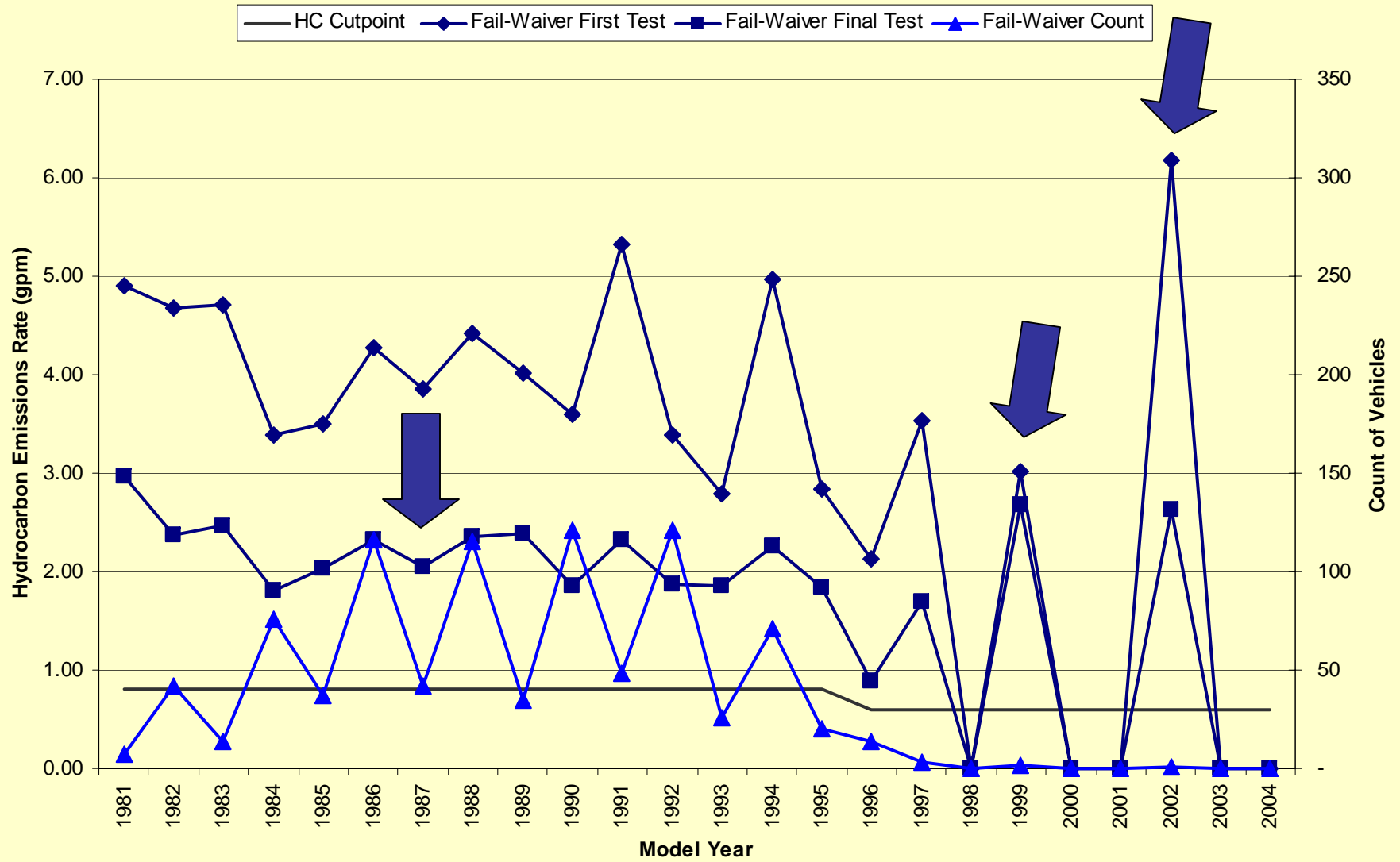
2004 Average HC IM240 Test Results by Model Year



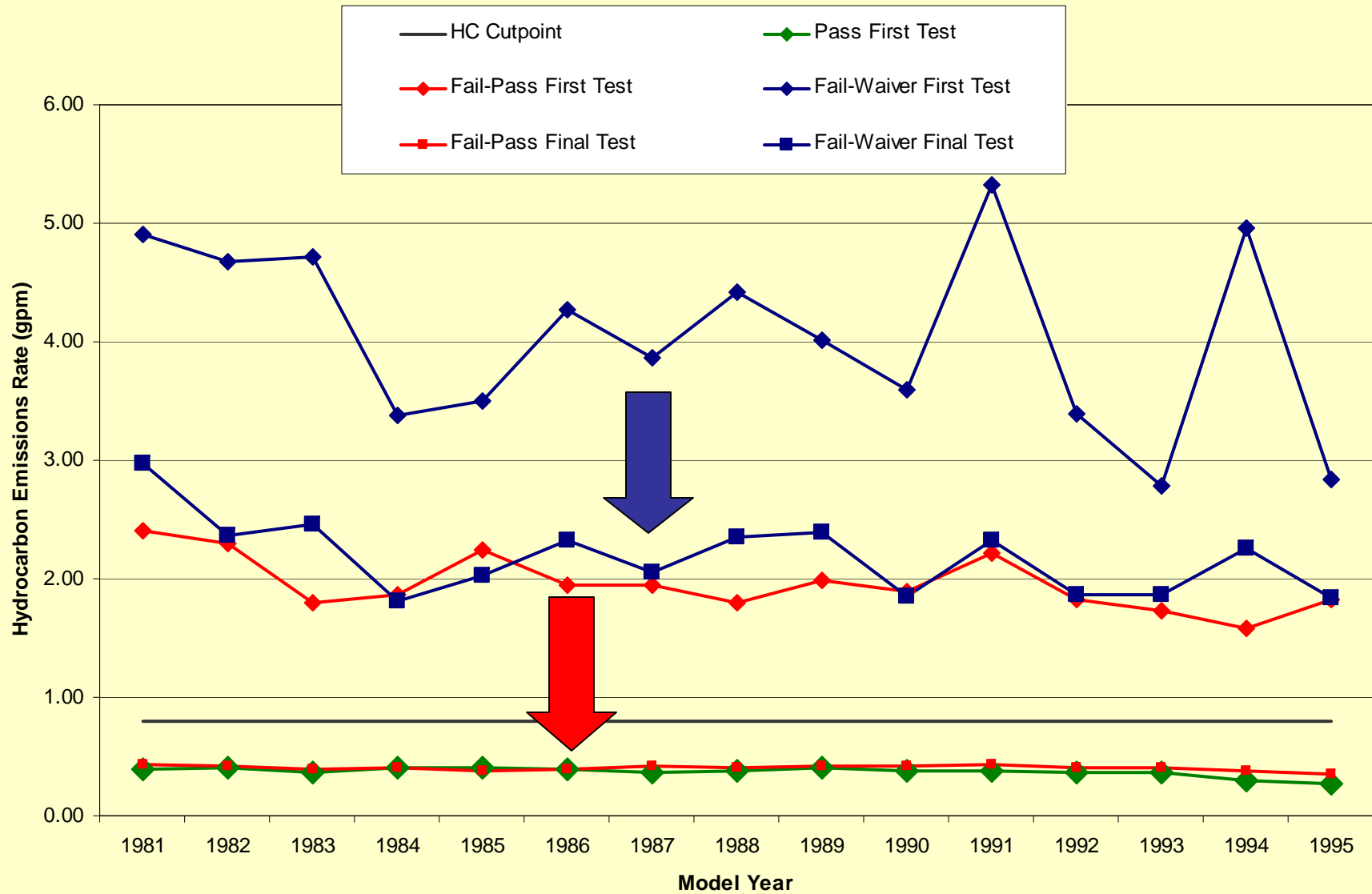
## 2004 Average HC IM240 Test Results by Model Year



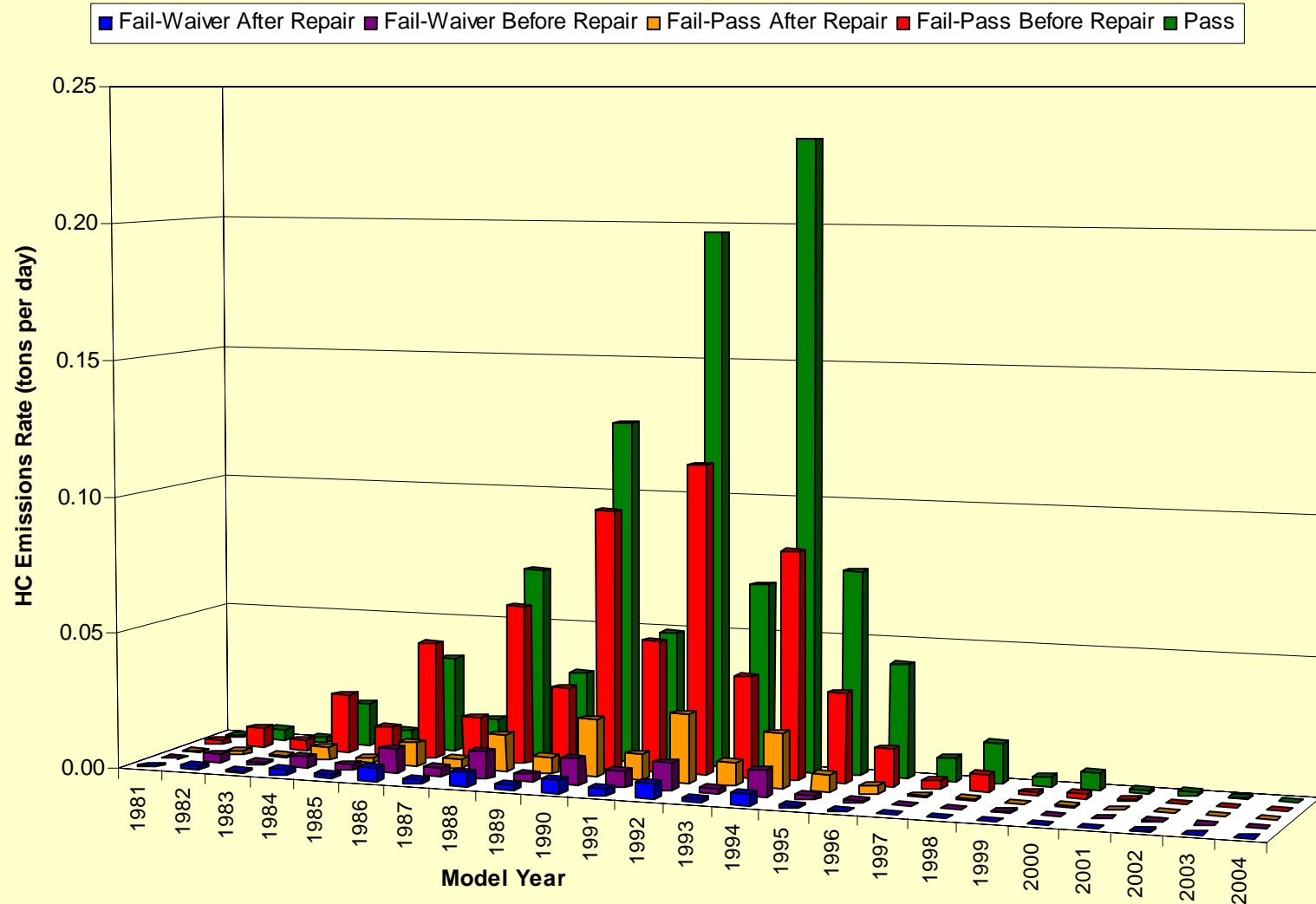
2004 Average HC IM240 Test Results by Model Year



2004 Average HC IM240 Test Results by Model Year and Test Result

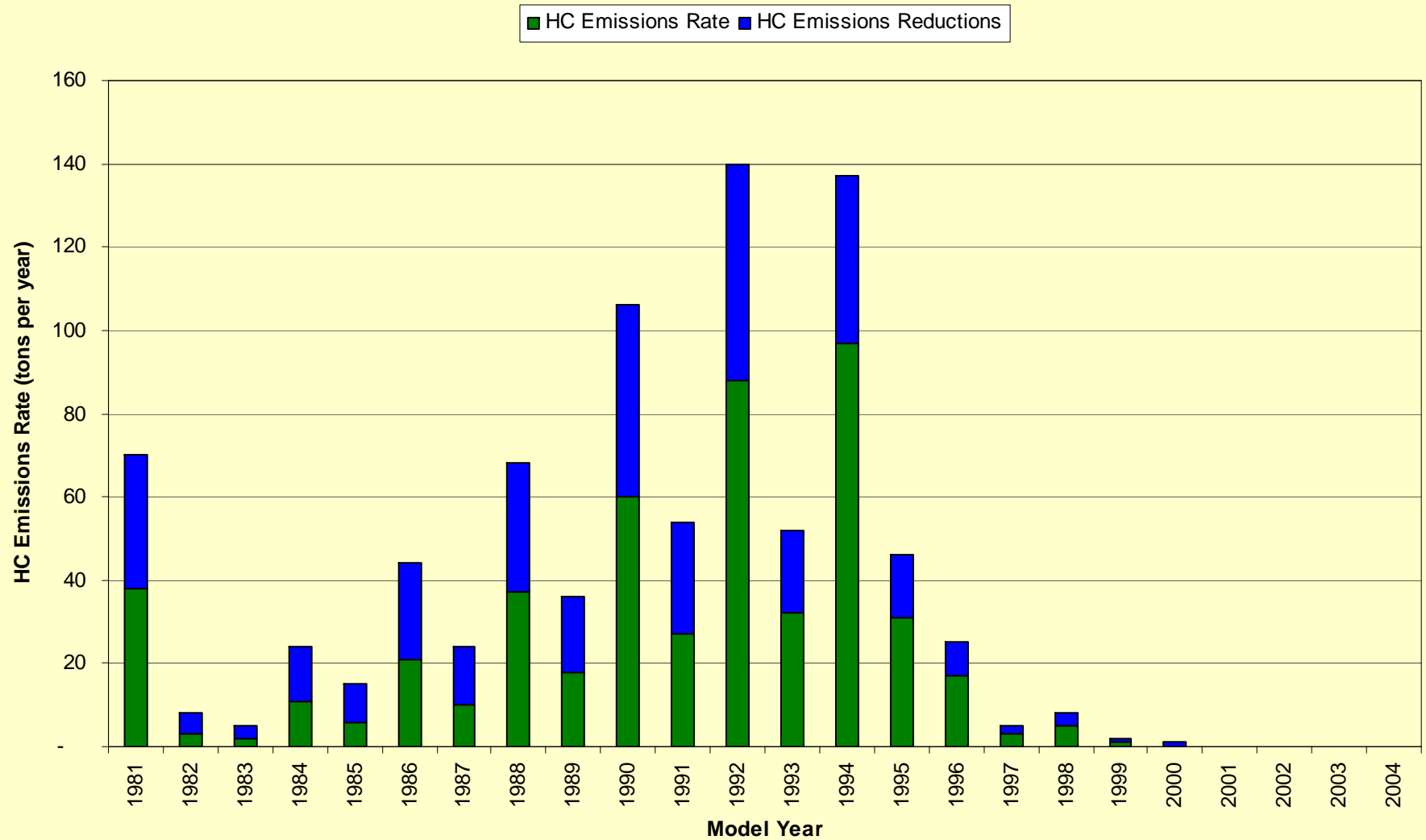


# 2004 Light Duty Gasoline Vehicle Average HC IM240 Emissions Rates by Test Result

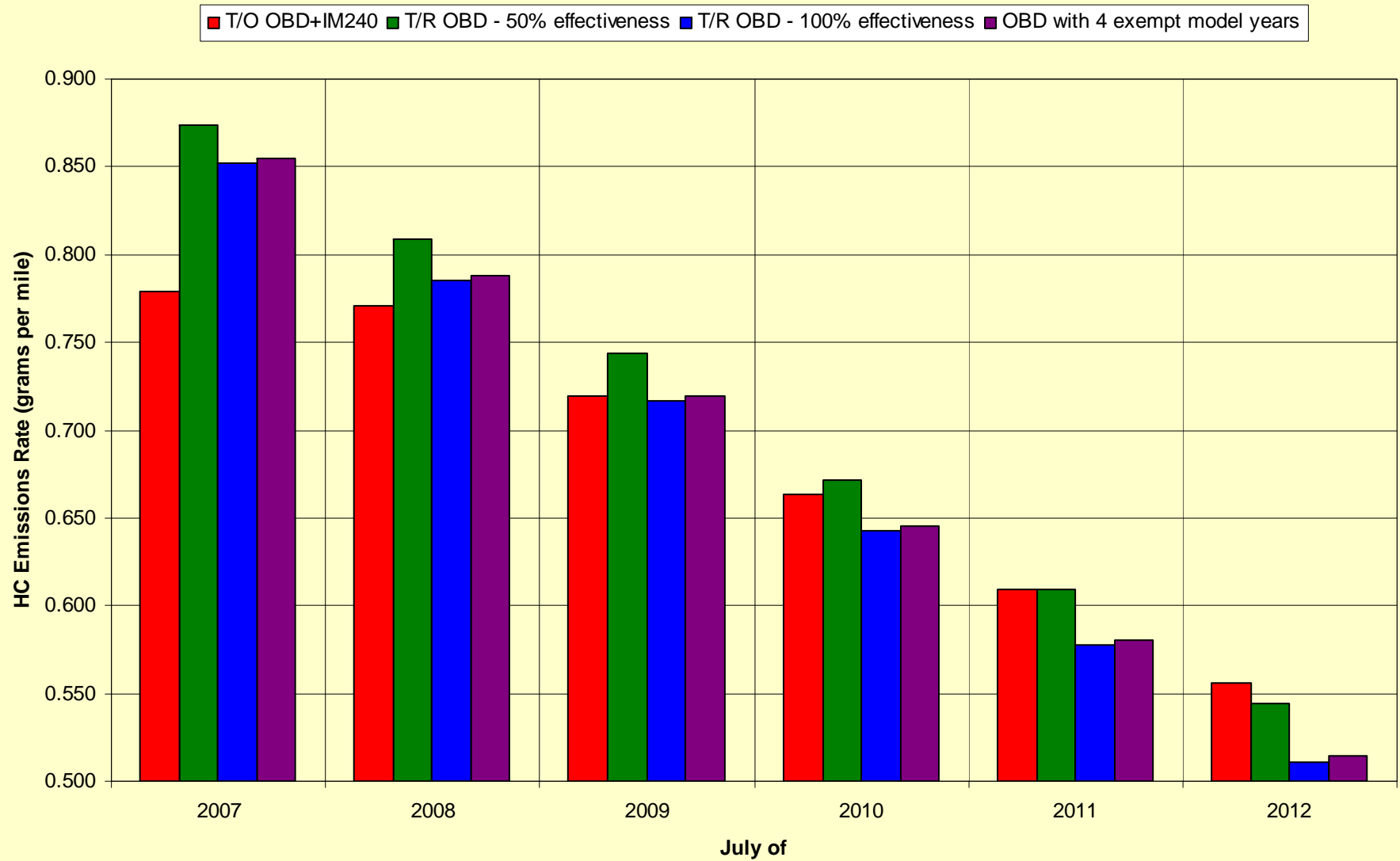




**2004 Light Duty Gasoline Vehicle  
Average HC IM240 Emissions by Model Year**



## MOBILE 6 LDGV HC Emissions Rates by Calendar Year



# Vehicle Test Methods

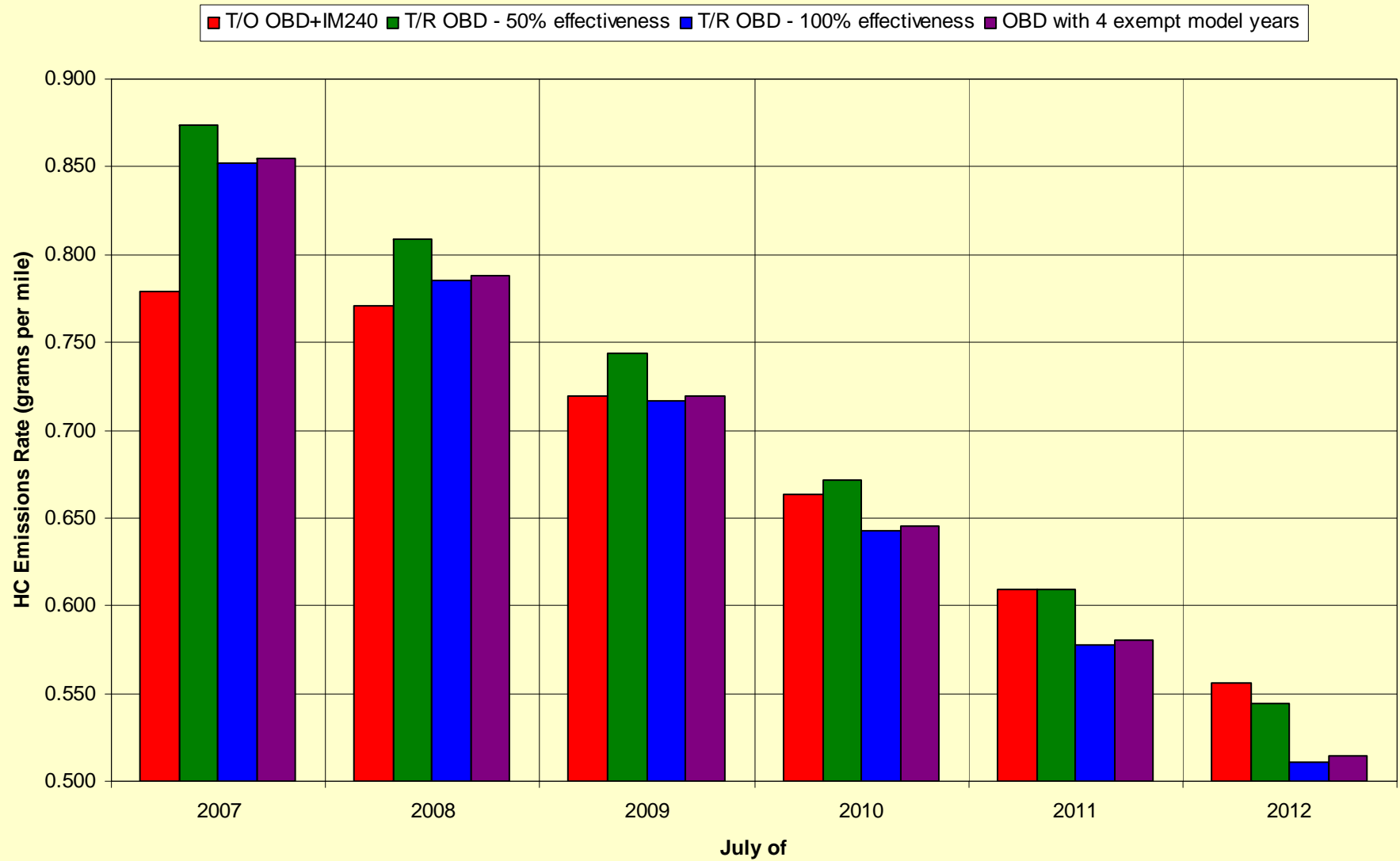
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  - Remote OBD - Green
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  - OBD test for 1997+ Light Duty Diesels? - Vote
  - OBD fraud prevention? - Vote
- IM240, Gas Cap Tests - Vote

# Vehicle Model Years

## ■ Which Model Years to Test/Exempt

- 1996 and newer - Green
- Exempt first 2 model years - Green
- Exempt hybrid electric vehicles - Red
- 26 year rolling window - Yellow/Green
- 1984 + model years - Need more info
- Exempt first 4 model years - Need more info

## MOBILE 6 LDGV HC Emissions Rates by Calendar Year



# Vehicle Model Years

- Which Model Years to Test/Exempt
  - 1996 and newer - Green
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  - Exempt hybrid electric vehicles - Red
  - 26 year rolling window - Yellow/Green
  - 1984 + model years - Vote
  - Exempt first 4 model years - Vote

# Geographic Coverage

- By Arbitrary Boundary - Red
- By Population Density - Red
- By Zip Code - Red
- By County - Green
- By State - Green (No legislator support)

# Test Network

- Centralized (Test-Only)
- Decentralized (Test-and-Repair)
- Decentralized (Test-Only)
- Hybrid (Both)
- Combined Safety/Emissions Testing?



# Potential Revenue

Test Frequency	Number of Tests	Cost of Tests	Net income/test	
Annual	1,400,000	\$ 12.00	\$ 10.00	
Biennial	700,000	\$ 12.00	\$ 10.00	
	Annual Test		Biennial Test	
T/R Shops	Number of Tests/year	Net income	Number of Tests/year	Net income
100	14,000	\$ 140,000	7,000	\$ 70,000
300	4,667	\$ 46,667	2,333	\$ 23,333
600	2,333	\$ 23,333	1,167	\$ 11,667
900	1,556	\$ 15,556	778	\$ 7,778
	Annual Test		Biennial Test	
T/O Shops	Number of Tests/year	Net income	Number of Tests/year	Net income
14	1,400,000	\$ 14,000,000	700,000	\$ 7,000,000
19	1,400,000	\$ 14,000,000	700,000	\$ 7,000,000

# Potential Expenses

<b>T/R Shops</b>	<b>Initial Expenses</b>	<b>Total Expense</b>
100	\$ 5,000.00	\$ 500,000.00
300	\$ 4,000.00	\$ 1,200,000.00
600	\$ 3,000.00	\$ 1,800,000.00
900	\$ 2,000.00	\$ 1,800,000.00
<b>T/O Shops</b>	<b>Initial Expenses</b>	<b>Total Expense</b>
14	\$ -	\$ -
14+5	\$ 200,000.00	\$ 1,000,000.00

## Possible Criteria for OBD Test-and-Repair Shops

- ASE Certifications in A6 (Engine Performance), A8 (Electrical Systems), and L1 (Advanced Engine Specialist)
- Continuing Education in OBD II
- Diagnostic Tools (Oscilloscopes, Gas analyzers, High-speed online access, etc.)
- Minimum Repair Effectiveness Index Score
- Minimum Number of Hours/Days

## Other Decentralized Issues

- Which agency should promulgate state rules for program?
- Which agency should have primary jurisdiction for auditing/enforcing program?
- What should the penalty be for fraudulent testing or fraudulent repair?
- Should test fee be fixed or left open for the market to decide?
- Should state contract with a test station management company?

# Test Network

- Centralized (Test-Only) - Vote
- Decentralized (Test-and-Repair) - Vote
- Decentralized (Test-Only) - Vote
- Hybrid (Both) - Vote
- Combined Safety/Emissions Testing? -  
Vote

# Remote Sensing

## ■ Clean Screening - Vote

- Convenience booster for tailpipe I/M programs
- Might exempt vehicles with Check Engine light on
- Might not work in a decentralized program
- Should test be free/reduced cost? - Vote

# Remote Sensing

## ■ Dirty Screening - Vote

- Needle in the haystack concept
- Might correctly identify high-emitting vehicles
- Might falsely identify low-emitting vehicles
- Registration revocation/Plate confiscation?

## ■ Fleet Analysis - Vote

# Waiver Options

- No waivers - Vote
- Cost limit waiver - Vote
- Registration extensions - Vote
- One waiver per vehicle - Vote
- Repairs by anyone - Vote
- Repairs by trained repair technicians - Vote



# Vehicle Registration

- Vehicle registration at test stations?
  - Should test stations provide all fee office functions? - Vote
  - Provide internet access for online registration at test stations? - Vote
- Electronic test result verification? - Vote
- Alternatives to license plate tabs? - Vote
- Disappearing vehicles? - Vote

# Test Fees

## ■ Motorist pays - Vote

- Tester remits state's portion of fee
- What is an acceptable test fee?
- Payment methods?

## ■ State pays - Vote

- State remits tester's portion of fee
- Source of funds?

# Test Frequency

- Annual - Vote
- Biennial - Vote
- Transfer of ownership - Vote
- Mileage-based - Vote
  - No tracking mechanism in place
- Vehicle age-based - Vote
  - Annual for older vehicles
  - Biennial for newer vehicles

# I/M Program Duration

- Other Non-attainment Plans (PM2.5, HAPs)
- September 2007 to September 2010 - Vote
- September 2007 to Attainment,  
Then Maintenance Plan Control or Contingency  
Measure - Vote
- September 2007 to Attainment,  
Then Re-evaluated Annually - Vote

# Next Steps

- Next Meeting Date
- Tracking I/M Summit Process
  - [www.dnr.mo.gov/alpd/apcp/sipworkgrp/sipgrpmain.htm#IM](http://www.dnr.mo.gov/alpd/apcp/sipworkgrp/sipgrpmain.htm#IM)
  - [www.ewgateway.org/environment/aq/Ozone-SIP/ozone-sip.htm](http://www.ewgateway.org/environment/aq/Ozone-SIP/ozone-sip.htm)
- I/M Summit Final Product
- Facilitation Suggestions